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REMARKS

Claims 1-16 and 18-20 are pending in this application. Claim 20 is rejected under 35 USC 112, first paragraph, as reciting new matter. Claims 11, 12, 14-16 and 18 are rejected under 35 USC 103 as being unpatentable over Vance in view of Manning. Claim 13 is rejected under 35 USC 103 as being unpatentable over Vance in view of Manning and further in view of Lee. Claims 19 and 20 are rejected under 35 USC 103 as being unpatentable over Lee in view of Vance and further in view of Manning. Claims 1-10 are allowed.

The applicant appreciates the indication of allowable subject matter in claims 1-10.

The applicant traverses the rejection of claim 20 under 35 USC 112 as reciting new matter. The Examiner's attention is drawn to page 4, line 25 of the originally filed specification for support of this claim limitation.

The applicant also traverses all of the prior art rejections because Manning fails to teach or suggest composite particles comprising alumina and monoclinic zirconia-hafnia. The Examiner suggests that the process of Manning "is the same process used by applicants to make the composite particles." (page 7 of Office Communication mailed 09/27/2005) This is not true, since the alumina particles and the zirconia-hafnia particles of Manning are disposed within a glass matrix which is lacking in the applicant's process. The process used by the applicant to make the claimed composite particles is a solid-state sintering process, and such solid-state sintering will not occur when the individual particles are dispersed within a glass matrix. Thus, the rejections of claims 11-16 and 18-20 under 35 USC 103 are not supported by the art because each of these claims contains the limitation of a three-constituent composite particle that is not taught or suggested by Manning.

Furthermore, independent claims 11 and 19 have been amended herein to include the limitation that the composite particles comprise micro-cracking within the particles resulting from differential thermal expansion among the particle constituents. This limitation is supported in the specification at page 5, lines 17-31. Such micro-cracking contributes to the low thermal conductivity and elastic modulus of the

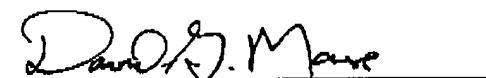
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overlayer. Nothing in the cited prior art teaches or suggests such micro-cracking within a composite particle, thereby providing an additional basis for the allowance of these claims.

New dependent claim 21 is added to specify that the composite particles of the article of claim 11 comprise an average size of 10-100 microns. This limitation is supported in the specification at page 5, line 2. No fee is necessary for this claim addition since claim 17 has been cancelled.

Reconsideration of the amended application in light of the above Remarks and allowance of claims 1-16 and 18-21 are respectfully requested.

Respectfully submitted,



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